

IN THE SPECIFICATION

Please replace paragraph [0059] with the following marked up paragraph:

[0059] A scale $j \in \{1 \dots J\}$ is assigned to each block of an image of size $M \times N$, so that a cost function Λ is maximized,

$$S_{opt} = \arg \max_{S \in \{1 \dots J\}^{M \times N}} \Lambda(S, B) \quad (8)$$

where S_{opt} is the optimal segmentation map for the entire image, S is one of the $J^{\frac{M}{m} \times \frac{N}{n}}$

~~$J^{M \times N}$~~ possible labelings of blocks of size $m \times n$, where there are $\frac{M/2^j}{m} \times \frac{N/2^j}{n}$ blocks of

size $m \times n$ at level $j \in \{1 \dots J\}$, with each block assigned one of the scales in $\{1 \dots J\}$, and

$\Lambda(S, B)$ yields the cost given any segmentation S and any entropy distribution B .